

Computerized Vegetable Gardening

A Computer Database

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MENU MATERIALS

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MENUS/INDEXES

• Vegetables

- Vegetables in General
- Goosefoot Family (Chenopodiaceae)
 - Beet (*Beta vulgaris*)
 - Swiss Chard (*Beta vulgaris cicla*)
 - Spinach (*Spinacia oleracea*) and New Zealand Spinach (*Tetragonia expansa*, of the Ice-Plant Family (Aizoaceae))
- Alyssum Family, or Crucifers (Cruciferae)
 - Radish (*Raphanus sativus*)
 - Turnip (*Brassica rapa rapifera*) and Rutabaga (*Brassica napobrassica*)
 - Kohlrabi (*Brassica oleracea gongylodes*)
 - Kale (*Brassica oleracea acephala*), Collards (*Brassica oleracea acephala*), and Mustard Greens (*Brassica juncea*)
 - Cabbage (*Brassica oleracea capitata*) and Chinese Cabbage (*Brassica rapa pekinensis*)
 - Brussels Sprouts (*Brassica oleracea gemnifera*)
 - Broccoli (*Brassica oleracea botrytis*) and Cauliflower (*Brassica oleracea botrytis*)
- Cotton Family (Malvaceae)
 - Okra (*Hibiscus esculentus*)
- Tobacco Family (Solanaceae)
 - Potato (*Solanum tuberosum*)
 - Tomato (*Lycopersicon esculentum*)
 - Peppers, Chili & Sweet (*Capsicum* species, various)
 - Eggplant (*Solanum melongena*)
- Alfalfa Family, or Legumes (Leguminosae)
 - Beans, Common Garden (*Phaseolus vulgaris*)
 - Lima Bean (*Phaseolus lunatus*); Fava, or Broad, Bean (*Vicia faba*); and Cowpea, or Black-Eyed Pea (*Vigna unguiculata*)
 - Pea (*Pisum sativum*)
- Chayote Family, or Cucurbits (Cucurbitaceae)
 - Cucumber (*Cucumis sativus*)
 - Muskmelon, or Cantaloupe (*Cucumis melo*); Miscellaneous

- Melons (*Cucumis melo*); and
 - Watermelon (*Citrullus lanatus*)
- Summer Squash (*Cucurbita pepo*)
- Pumpkin (*Cucurbita pepo*), Fall and Winter Squash (*Cucurbita* species, various), and Gourds (various species)
- Hemlock Family, or Umbels (Umbelliferae)
 - Carrot (*Daucus carota*)
 - Parsnip (*Pastinaca sativa*) and Parsley (*Petroselinum sativum*)
 - Celery (*Apium graveolens dulce*) and Celeriac (*Apium graveolens rapaceum*)
- Daisy Family, or Composites (Compositae)
 - Lettuce (*Lactuca sativa*), Celtuce (*Lactuca sativa*), Endive (*Cichorium endiva*), and Dandelion Greens (*Taraxacum officinale*)
- Lily Family (Liliaceae)
 - Onion (*Allium cepa*), Scallions (*Allium cepa*), and Leek (*Allium porrum*)
 - Garlic (*Allium sativum*), Shallots (*Allium ascalonicum*), and Chives (*Allium schoenoprasum*)
 - Asparagus (*Asparagus officinalis*)
- Grass Family (Gramineae)
 - Sweet Corn (*Zea mays rugosa*)

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by ...]

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- Growth Habits
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 - Riboflavin [Vitamin B-2]
 - Niacin
 - Pantothenic Acid
 - Vitamin B-6
 - Folic Acid [Folic Acid]
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- The USDA's New [as of publication date] "Food Guide Pyramid"
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About Computerized Vegetable Gardening

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INTRODUCTION

WELCOME TO *COMPUTERIZED VEGETABLE GARDENING*! I'm "Bug" Doug Drenkow—so nicknamed because of some of my other works, on "entomology" [the study of insects and their kin]. I've been an organic (and occasionally hydroponic) vegetable gardener for over 20 years, and in 1980 I received my Bachelor of Science degree (with Highest Honors, I'm proud to say) in Plant Science from the good ol' University of California at Davis. For years now I've been researching a considerable variety of subjects; and recently, I've been committing my thoughts to computer disks. For more on "computerization," see the file "About the 'veg' Program." For now, let's consider the "Who," "Why," "What," "Where," "When," and "How" of vegetable gardening—after all, the medium exists to serve the message!

WHO VEGETABLE GARDENS? People of every size, shape, color, sex, and age (For those of you unable, or unwilling, to perform the rigorous jobs in the garden, I recommend to you the classic book by Ruth Stout on "no-work gardening").

Vegetable gardening has been a recreational, educational, and indispensable part of billions of human lives for about 10,000 years! Whether it's one person on one's own patch of the Earth or a family or community come together, a "green thumb" offers many, often priceless rewards.

WHY VEGETABLE GARDEN? Why not?!

There are culinary reasons to vegetable garden. You can tickle your palate with unbelievably

tasty, succulent, colorful, fresh-from-the-garden crops. You can grow species or varieties of vegetables not readily available from local stores. You can learn to like new things.

There are economic reasons to vegetable garden. You can reduce your food bill. Youngsters and others can earn money selling their home-grown produce. You can write your own book or database someday (Just give ol' "Bug" Doug a chance to sell his, OK?). You can help raise your standard of living (Nations with a high per-capita consumption of vegetables and fruits tend to have a high per-capita standard of living—vegetables are indeed good for you!)

There are biological reasons to vegetable garden. You can take healthy pride in a healthy product. You can provide yourself, your family, and your neighbors with vitamin-, mineral-, and fiber-rich foods (all the more nutritious because they are garden fresh). With a balanced diet and moderate exercise (See your physician first), you can probably reach your most natural body weight (Most vegetables are low in calories and fats, and none have any cholesterol whatsoever!). You can say "good-bye" to many pesticides and other artificial food additives. You may well live longer and better, physically and emotionally (See below). Gardening can be great exercise, a full-body work-out in the fresh air of the great outdoors! You can learn about the "birds and the bees" from the birds and the bees. You can conduct biological experiments in your own back yard (That's my excuse whenever something goes wrong!). You can be a "beneficial organism" in the environment. You can learn the responsibility to care for living things (without

too much guilt if things don't work out quite the way you planned).

There are social reasons to vegetable garden. You can get together with family or community in a common, wholesome project. A trashy lot can be transformed into a "paradise on Earth" (Just beware of toxic dumps!). You can be part of America's Number One Hobby. You can share a tradition with your ancestors' ancestors.

There are spiritual reasons to vegetable garden. You can be caretaker of your little corner of God's green Earth. You can get in touch with the Earth—literally and figuratively. You can immerse yourself in the beauty of nature. You can witness the stark realities of survival of the fittest. You can learn to more fully appreciate the miracle of life. You can get in touch with some of the most basic instincts of human nature. You can take your frustrations out on bugs, weeds, and dirt clods instead of on some poor schnook who just happens to be handy when you're not exactly in the best of moods. You can relieve stress (Watering by hand can be as relaxing as petting a puppy). You can talk to plants (but see a physician if they start to talk back!). You can learn patience, over the weeks to months or even years required to grow a crop or build a soil.

There is yet another reason to vegetable garden: It's fun!

WHAT TO VEGETABLE GARDEN? Whatever suits your fancy. The 50 or so common vegetables (in 30 entries) in this data-base are all members of just 10 families of plants (out of well over a hundred in nature). I've presented

the vegetables in these groupings to emphasize how similar the members of each family typically are to one another, in "nature and nurture"—if you can't find information on one plant, the advice for its "next of kin" may well be helpful.

Incidentally, the order in which the families of plants are presented is perhaps the most natural—from the most "primitive" families to the most "advanced" families (at least according to the "Besseyan System" of classification, the probably most commonly accepted arrangement in botany).

By reading the specific entries, general advice, and cumulative indexes, you will get an idea of what kinds of plants will be the easiest or most challenging or simply most interesting to grow in any given time or place. You can plant crops you know you like to eat and/or grow or those you'd like to try for the very first time. You can grow old-time "standards" or the newest "hybrids." You can plant your entire garden to one crop (if you've got a big family and/or a big freezer), or you can plant a veritable smorgasbord of vegetables (which, incidentally, would probably keep any particular pest population from exploding). You can grow vegetables alone or with herbs, berries, or ornamental plants (although you'll probably have to keep greedy shrub and tree roots a safe distance away).

By the way, you may well ask those timeless questions, "What exactly IS a 'vegetable' anyway? Is a tomato a fruit or a vegetable?" Well, I've never read a satisfactory horticultural definition of "vegetable" anywhere; but try this

one on for size: A "vegetable" is a "herbaceous" [leafy, non-woody] plant with edible parts consumed in substantial amounts; if the edible part is a grain, then it is soft; and if the edible part is a sweet and fleshy fruit, then the plant is a herbaceous vine. Let's check it out: Peanuts (produced on herbaceous plants) are vegetables, but walnuts (produced on woody plants) are not vegetables (They are tree nuts) (Incidentally, I've not included peanuts in this data-base because of the threat from poisonous, carcinogenic "aflatoxin," produced by molds growing on improperly cured peanuts in storage). Root parsley (eaten in substantial amounts, at one sitting) is a vegetable, but leaf parsley (eaten in small amounts) is not a vegetable (It is an herb) (I've included garlic in this data-base as a vegetable because I personally consume quite "substantial quantities"). Sweet corn (a soft grain) is a vegetable, but popcorn (a hard grain) is not a vegetable (It is a cereal). Tomatoes and melons (whose sweet and fleshy fruit is produced on herbaceous vines) are vegetables, but strawberry and banana (whose sweet and fleshy fruit is produced on herbaceous plants that are not vines) are not vegetables (They are simply fruits). Likewise, the sweet and fleshy fruit of grape (produced on woody vines), blackberry (produced on woody shrubs), and apple (produced on woody trees) are not vegetables (They are, of course, fruits). In addition, eggplant (whose fruit is fleshy but not very sweet) is a vegetable; peppers, snap bean, and edible-podded pea (all of whose fruit is sweet but not very fleshy) are vegetables; and rhubarb (whose sweet and fleshy edible part is actually a leafstalk not a true, flower-borne fruit) is also a vegetable. OK, it all checks out! But then

again, cooks have their own classification schemes (That's why if you want to learn how to grow and use rhubarb, you'll have to wait for *"Bug" Doug's Computerized Fruit, Berry, & Nut Growing*).

WHERE TO VEGETABLE GARDEN? In any state of the Union (and in any nation on the globe)!

A garden can be located in just about any sunny spot with good air circulation and water drainage (For more details, see "Where to Sow," in the general advice for "Planting"). Even partially shady locations can host some, especially leafy vegetables (see the indexes).

A good garden starts with a good garden plan: Map-out your planting rows and hills, to scale, on graph paper (and see the notes below on "succession" planting).

Take into account any variations in soil tilth, fertility, "pH," etc. throughout the garden (For correcting problem soils, see the extensive entries in the general advice for "Planting"—few soils are beyond help).

For one method of saving garden space, see the remarks on "intensive" planting, with "Sowing Distance Within Rows & Between Rows," in the general advice for "Planting." Growing "dwarf" varieties will save space ("Bush" pumpkins have been a favorite in our little garden), and many "dwarf" and other small vegetable plants can be grown in containers (See the notes in the general advice for "Watering and Fertilizing During the Season"). Staking or trellising vining plants,

such as tomatoes or cucumbers (both prized in greenhouses overwinter), will also save space.

Trellised plants and tall-growing plants, such as corn, are typically planted on the north end of the garden, to prevent shading-out the other crops; and "perennial" vegetables, namely rhubarb and asparagus, must be planted where nothing else will be grown for several years. Shrubs and trees not only can shade the garden, as can fences and buildings; but also, their roots can compete with vegetables for water and minerals from the soil: Keep the garden at a safe distance (and see "Where to Sow," in the general advice for "Planting").

Many vegetable plants can be worked into flower beds, perhaps as a border planting (For more details, see the index to "Ornamental Vegetables").

And remember that it's quite handy to have your produce near the table—it's not for nothing that vegetable (and herb) plots are often called "kitchen gardens."

WHEN TO VEGETABLE GARDEN? See the index to the "Warmth Requirements" of various vegetables and also "When to Sow" in the general advice for "Planting" to get an idea of when to plant which vegetables.

Although most areas are not as fortunate as along the Gulf and Pacific coasts, where various vegetables can be grown year-round, every area has a long enough growing season for a goodly variety of crops (and see the general advice on "Transplanting," for getting a jump on the growing season).

Your planting strategy must take into account not only space but also time—to make best use of space, figure-out (and map-out) what you'll plant after the first crops are harvested (assuming you live in one of those many areas of the country where the growing season is long enough to allow such "succession" planting—for more details, see "When to Sow," in the general advice for "Planting").

Remember to not plant more than you will be able to take care of: Take your personal needs and desires into account when planning your planting. Ultimately, the health of your garden will depend upon your continually taking the time to keep a close eye on things (For example, populations of aphids can explode overnight!).

HOW TO VEGETABLE GARDEN? You can start by exploring the rest of this database. However, here are a few pointers.

As you work in your garden, you'll soon discover exactly what sorts of tools you'll need for your particular crops and location. Probably the minimum requirements are a spading fork (or spade, shovel, or roto-tiller), for turning the earth; a hoe, for pulverizing the soil, opening and closing seed furrows, and cutting weeds; a rake (the stronger, the better), for smoothing the soil and removing debris; and a hose, or other water-delivering system. In addition, a wheelbarrow, for moving soil amendments in and garden refuse out, and a pair of gloves, for preventing the otherwise inevitable blisters and "manicural" problems, are highly recommended. You'll find considerable variety

for each of these and other implements on the market: You'll have to be the judge as to what's best for your particular needs. I'll give you four valuable pieces of advice, however.

First, don't forget that your hands will probably be your most valuable tools (even better than trowels for transplanting).

Second, get the most generally useful tools (such as a standard hoe) before even thinking about getting highly specialized tools (such as a very narrow hoe)

Third, buy the best tools you can afford—they'll serve you well for years to come and, thus, probably be less expensive in the long-run than "cheap" tools (In general, the best tools have seasoned hardwood handles and forged, one-piece heads—there's less to break and what is there is as strong as it can be).

Fourth, keep your tools in good condition so they will last: After washing or scraping dirt off metal parts, dry them well and (preferably) oil them, as in a bucket of oily sand; and you may wish to occasionally, but not too exuberantly, sharpen the blades of digging and cutting tools (For the blade of a spade, push and pull a file at an angle across each side of the digging edge of the blade; and for the blade of a hoe, push a file across the cutting edge of the blade at an angle back from the side facing the handle of the hoe).

Don't be afraid to contact your county Extension agent or State Extension Office (as found in phone books), for such things as soil-testing or identifying pests: Although they're usually very

busy, they're usually very helpful—it's their job. Get to know the people at a reputable local garden shop—they can tell you of the best varieties, planting dates, etc. for your neighborhood and season. And don't forget that "old timers" have a lifetime of experiences they may be able—and happy—to share.

Finally, remember that almost everything in your garden is under your control, to one degree or another: Enjoy the responsibility!

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